

While no editor is credited, the volume has clearly had extensive editing; despite multiple section authors, the writing is clear and concise and the arguments are presented in a straightforward and methodical manner throughout. Color versions of the figures are available on the web site, along with full data sets showing sherd counts, density calculations, excavation data, and site sketches. The website also provides GIS maps (in AutoCAD dxf or GeoTIFF formats) produced during the project. All of this website data is remarkably well documented, with good metadata that makes it easy to understand and incorporate into other projects (although the combination of dxf files and the use of a Chinese UTM system that is incompatible with the World Geodetic System datum may make the GIS data difficult for some scholars to use in wider contexts).

The entire settlement analysis rests on a single premise, that “larger populations leave more garbage on the landscape than smaller populations do” (p. 57). While this is likely for garbage in general, when it comes to ceramic sherds, it is less clear. One wonders whether the ceramic concentrations identified as ancient population centers instead were kiln sites or disturbed cemeteries. While the team apparently recorded archaeological architectural and grave features when en-

countered (p. 54), no use is made of this information nor is it included in the website data. This seems a lost opportunity, as it would be interesting to see whether settlement patterns detected by sherd analysis corresponded with structural features, at least for later time periods.

In sum, this is a volume of the sort one might think would be very common but in fact is vanishingly thin on the ground: a detailed explanation of the use of archaeological survey to address an academic (as opposed to strictly heritage management) question. As such it is of interest not only to those exploring the social development of northeast China, but to a wide audience of archaeologists concerned with maximizing the knowledge returned from survey work.

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4000 Years of Migration and Cultural Exchange: The Archaeology of the Batanes Islands, Northern Philippines. Peter Bellwood and Eusebio Dizon, eds. Terra Australis Volume 40. Canberra: Australian National University E Press, 2013. 254 pp. 141 figures, 32 tables. Color frontispiece in print copy. Paper, AU\$58.00, ISBN 978-1925021271. Free ebook ISBN 978-1925021288, <http://press.anu.edu.au/wp-content/uploads/2013/12/whole9.pdf>

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The monograph is an important one, filling a large gap in our knowledge of this area by providing valuable and detailed data on the archaeology of the Batanes Islands. The monograph presents data from excavations carried out between 2002 and 2007 from sites

located on four islands and covering 4000 years.

The Batanes are strategically located between Taiwan and the Philippines. The data presented here can allow one to assess the nature of colonization and subsequent inter-

actions occurring between these islands and farther afield over the last 4000 years. What better place to gauge the nature of interactions of China and Taiwan with areas to the south, along with the role Austronesians played in those interactions? Yet, as the editors note at the beginning and end of this tome, this book was published as a source of data, not to “place or repeat” statements on Austronesian origins.

Notwithstanding, the Batanes form a bridge of intervisible islands (on clear days) linking the Philippines and Taiwan. And we know that contact was made between these two landmasses in the past, despite detractors arguing that the strong Kuroshino current would have precluded sailing from north to south. This monograph demonstrates that purposeful interaction did occur, along with interactions resulting from drift voyages from Japan.

Divided into thirteen chapters and an appendix, this volume provides a wealth of data. Having such a detailed presentation of data and the use of leading experts to cover specialist topics is a strong point. Szabo, Yang, Vitales, and Koppel worked on shell middens (chapter 12); Cameron on spinning tools (chapter 7); Stevenson on palaeobotanical remains (appendix 1); Hung and Iizuka on greenstone (chapter 9); Piper, Amano Jr, Yang, and O'Connor on zoological remains (chapter 9); and Campos on fish (chapter 11). Bellwood, Dizon, and de Leon worked on pottery (chapter 6) and Bellwood and Dizon (the editors) again on portable artifacts (chapter 8).

Another strength of this volume is the wonderful presentation of previous archaeological work, excavations under review now, and the radiocarbon chronology that goes with them. A thorough presentation of more than a dozen sites is covered in chapters 2 through 4 (by Bellwood, Dizon, and Mijares), with radiocarbon chronology making up the fourth substantive chapter (that is, chapter 5).

Chapter 5 establishes chronological phases for each island before setting up an island-wide Batanes sequence primarily defined by pottery and chronology. The first phase, Batanes Islands Phase 1, encapsulates 2500 to

1000 B.C., and covers red-slipped pottery from the sites of Torongan and Reranam, both on Itbayat Island; Reranam also has fine cord-marked pottery. Phase 2, from 1300 B.C. to A.D. 1, covers circle-stamped and red-slipped pottery. Two subphases were defined based on the patterns formed by stamped circles, the older having rectangular meander designs, the younger having lozenge designs. Nephrite is found in both subphases, with circular ear ornaments associated with the earlier subphase (at the Anaro 3 site on Itbayat), and a nephrite workshop found for the latter subphase (at the Savidug Dune site on Sabtang). The third phase, 500 B.C./A.D. 1 to A.D. 1200, is found at numerous sites and is made up of red-slipped pottery with no decoration. Phase 4 is similar to Phase 3, but includes imported glazed ceramics from Asia.

With so much riding on ceramic data, it is important to look at the pottery chapter. Chapter 6 details the Batanes pottery sequence, at least for most of the sites, going into detail on decoration, and pottery subdivisions based on circle-impressed decoration (briefly mentioned in chapter 5). Although the pottery descriptions are well set out, chapter 6 could have been better. First, why not use chapters 2 through 5 as heuristic devices to describe the archaeological materials phase by phase? That is, describe what is happening under each chronological phase rather than take a site-by-site approach, which sort of reinvents the wheel in each chapter (2 through 4). Secondly, chapter 6 is not balanced. There is little discussion on Sunget pottery here, which like the other assemblages was discussed in the site and chronology chapters. Although Sunget was previously excavated by a Japanese team, this chapter would have been the right place for a detailed comparison with other assemblages. Lastly, the illustrations of the pottery in chapter 6 could be enlarged; many of the illustrations are too small to make out details.

Chapter 6 does, however, get into the nitty-gritty of pottery decoration for other major sites, including Torongan Cave, Reranam Rockshelter, and Anaro on Itbayat, Mitangeb on Siayan Island, and Savidug Dune on Sabtang. The sequences from each site are

defined and described in detail. Throughout these descriptions, important comparisons are made with assemblages elsewhere, Taiwan in particular. For example, for the early pottery from Torongan and Rerantum, Bellwood and Dizon note similarities with contemporary Middle Neolithic assemblages (2000 B.C.) from southeast Taiwan, such as Chaolaiqiao (2200 B.C.) and Donghebei near Taidong. All have red slipping.

The chapter ends with an important section by de Leon, who undertook fabric analysis of 15 pottery thin sections from the Savidug Dune site and Anaro as part of her M.A. research. She samples plain ware. On the basis of mineral content, de Leon demonstrates that pottery from Savidug Dune and Anaro were both made at their respective islands, and thus similarities between sites over time should be seen as indicative of interactions between the islands and not trade. De Leon's analysis is extremely important and should be extended to cover the complete assemblage. Any information on production is crucial in understanding and assessing socioeconomic modeling based on pottery distributions.

I will not go into detail on each of the specialist chapters, but will make some salient points. First, Cameron's superb chapter on spindle whorls makes a major contribution in explaining the distribution of material culture throughout this region. She notes biconical whorls from Anaro and points out that "these biconical spindle whorls are so specific culturally that they can be used to trace the movement of prehistoric groups into various parts of southeast Asia" (p. 119). Most whorls belong to Phase 2 of the Batanes sequence. This is the phase that has connections with Taiwan such as imported nephrite and slate. Cameron points out that the stamping on the biconical whorls from the Batanes is also found at the site of Tanshishan in southeast China, and the late Neolithic site of Beinan, southeast Taiwan. She concludes by stating: "Had spinning been invented independently in the Batanes, basic whorl types (flat discs) would be represented rather than biconical forms. Because biconical whorls have a higher moment of inertia than basic types, and spin faster than basic

forms, they indicate a presence of spinners with technical knowledge and skill, not novices" (p. 121).

What else is moving around? Most of the adzes found are from metamorphics, which are not natural to the Batanes. They could have come from Taiwan, Luzon; or both? A number of adzes from Sunget and Anaro were made from nephrite and sourced to Taiwan. Stepped adzes can be compared with similar forms found from Fujian and Taiwan. Chisels with circular cross sections are also found from both Savidug Dune and Anaro. These are rare, and Bellwood and Dizon argue that they bear resemblances to chisels elsewhere in Asia including the northern Philippines and northern Moluccas. They also note that hoe-like instruments identified from the assemblages have parallels with Taiwan and the Philippines. Bark cloth beaters were recovered with similarities to Nanguanli in Taiwan and elsewhere.

The most easily identifiable important item moving south into the Batanes is nephrite. Hung and Iizuka (chapter 9) present a brilliant chapter not only on the analysis of nephrite objects from the Batanes, but their research into the distribution of nephrite across Southeast Asia. Using evidence of flaking floors, they argue that the Batanes was importing jade and exporting finished products. Shell artifacts are included in the list of connections to other places. What is important is that these connections occur from the earliest occupation onward.

Also of importance is the identification of pig bone from the earliest levels from the Batanes Islands. These bones were identified and determined to be similar to the eastern Eurasian boar *Sus scrofa* from China and Taiwan (chapter 10). Dog is also found from 2500 B.P. contexts from the Savidug Dune site. A similar date occurs farther south at Nagsabaran (Luzon), although dog is also found from Callao Cave, northern Luzon, dated to 1650–1470 cal B.C. (p. 197). Chapter 10 would be a bit more accessible, however, with the addition of a short introduction on what animals are being measured.

Despite these minor quibbles, I can only congratulate the authors on such a first-rate and very readable monograph. These islands,

as noted above, are located in an important region of the world, and this significant publication covers details normally only dreamt of in archaeological publications. It succeeds because of its focus on archaeological data. *Terra Australis* as a series provides a venue for archaeologists to present data from excava-

tions, something that most journals these days are loathe to do (even those that promote themselves as such). The series has another feather in its cap with publication of this volume, which will be in demand by all scholars with an interest in Asian and Pacific archaeology.